

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/02492

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16L21/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | CH 676 875 A (STRAUB IMMANUEL) 15 March 1991 (1991-03-15) | 1-3, 5 |
| Y | column 2, line 21 - column 3, line 46; figures | 4, 6, 8, 9 |
| X | DE 89 12 207 U (HOCHSCHULE FÜR ARCHITEKTUR UND BAUWESEN) 22 February 1990 (1990-02-22) page 4, paragraph 3 - paragraph 4; figures | 1-4, 6 |
| Y | EP 1 143 184 A (GEBERIT TECHNIK AG) 10 October 2001 (2001-10-10) column 2, line 33 - line 37; figure 1 | 4 |
| Y | US 1 864 339 A (CHURCH LEWIS H) 21 June 1932 (1932-06-21) | 6 |
| A | page 2, line 49 - line 78; figures 4, 6 | 7 |
| | --- -/-- | |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

25 August 2003

Date of mailing of the International search report

04/09/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Axelsson, T

INTERNATIONAL SEARCH REPORT

Internat Application No

PCT/GB 03/02492

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| Y | US 5 273 322 A (STRAUB IMMANUEL) 28 December 1993 (1993-12-28) column 2, line 64 - line 68; figures 3,4 ----- | 8 |
| Y | US 6 070 914 A (SCHMIDT FRANK) 6 June 2000 (2000-06-06) column 3, line 60 - line 65; figure 3 ----- | 9 |

INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/GB 03/02492

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|--|--|
| CH 676875 | A | 15-03-1991 | CH 676875 A5 | 15-03-1991 |
| DE 8912207 | U | 22-02-1990 | DD 281639 A5 DE 8912207 U1 | 15-08-1990 22-02-1990 |
| EP 1143184 | A | 10-10-2001 | EP 1143184 A1 | 10-10-2001 |
| US 1864339 | A | 21-06-1932 | NONE | |
| US 5273322 | A | 28-12-1993 | AT 127892 T AU 649578 B2 AU 2994092 A BR 9300113 A CA 2086990 A1 CN 1079280 A ,B DE 59203683 D1 DK 551587 T3 EP 0551587 A1 ES 2076652 T3 FI 930153 A JP 2020309 C JP 5256383 A JP 7037836 B KR 9606177 B1 MX 9207473 A1 NO 930121 A RU 2068525 C1 ZA 9209224 A | 15-09-1995 26-05-1994 22-07-1993 20-07-1993 16-07-1993 08-12-1993 19-10-1995 13-11-1995 21-07-1993 01-11-1995 16-07-1993 19-02-1996 05-10-1993 26-04-1995 09-05-1996 01-07-1993 16-07-1993 27-10-1996 26-05-1993 |
| US 6070914 | A | 06-06-2000 | DE 19908119 A1 EP 0959286 A2 JP 3144414 B2 JP 2000310367 A NO 992430 A | 16-12-1999 24-11-1999 12-03-2001 07-11-2000 22-11-1999 |